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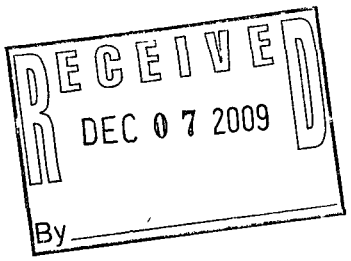
December 4, 2009



Mr. Stephen Tzhone
Remedial Project Manager
Superfund Division (6SF-RA)
U.S. Environmental Protection Agency
Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Via Email & Certified Mail/Return Receipt Requested

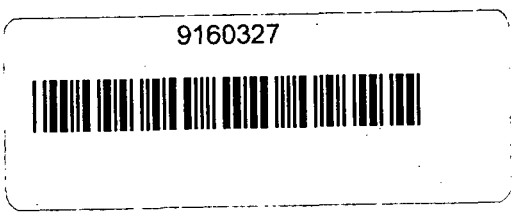
Re: San Jacinto River Waste Pits Superfund Site near Pasadena, Harris County, Texas; Response to Unilateral Administrative Order and Notice of Intent to Comply; Designation of Project Coordinator

Dear Mr. Tzhone:

This letter is in response to the letter dated November 20, 2009 from Mr. Samuel Coleman, P.E., Director – Superfund Division of Region 6 of the US Environmental Protection Agency ("EPA") ["November 20 Letter"]. The November 20 Letter served as a cover for a Unilateral Administrative Order ("UAO") for Remedial Investigation and Feasibility Study ("RI/FS") issued to McGinnes Industrial Maintenance Corporation ("MIMC") and International Paper Company ("IPC"). The UAO was purportedly issued pursuant to Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA").

Section X of the UAO requires MIMC and IPC to provide written notice, within fourteen (14) days of the effective date of the UAO, to EPA regarding whether they intend to comply with the terms of the UAO. As noted in the attached document entitled *Response of McGinnes Industrial Maintenance Corporation to Unilateral Administrative Order and Statement of Sufficient Cause Defenses* (marked as "Exhibit 1"), MIMC does intend to comply with the UAO. Please note, however, that as required by Section X of the UAO, MIMC has listed a number of "sufficient cause" defenses for noncompliance with the UAO and MIMC reserves the right to raise those defenses and other defenses that may arise at a future time. Exhibit 1 is incorporated herein by reference.

The November 20 Letter incorrectly states that MIMC and IPC failed to submit a Good Faith Offer to EPA to negotiate an Administrative Order on Consent ("AOC") for an RI/FS. MIMC and IPC submitted a Good Faith Offer ("GFO") on September 18, 2009 . The November 20 Letter represents the first response that IPC and MIMC have received from EPA to the GFO.



At no point in the almost two (2) months that elapsed from the submittal of the GFO did EPA attempt to discuss the September 18, 2009 GFO with either party.

Common to many of the defenses set out in Exhibit 1 is the fact that, as currently written, the UAO and the attached Draft Statement of Work are so ill-defined and vague that compliance with their terms is impossible to determine or predict. Moreover, the UAO has been issued without an adequate characterization of the risk posed by the Site making the issuance of the UAO premature and unlawful. Furthermore, MIMC's financial ability to fund the ill-defined RI/FS required by the UAO is uncertain at this time.

In addition to the defenses raised in the attached Exhibit 1, MIMC reserves the right, in accordance with §106(b)(2)(C), (D) and (E) of CERCLA, to (i) petition the EPA for reimbursement from the Fund of its reasonable costs of performing the RI/FS, plus interest, and (ii) to the extent EPA fails or refuses to grant all or part of the petition, file an action against EPA in federal court seeking reimbursement from the Fund.

Finally, in accordance with Paragraph 75 of the UAO, MIMC joins with IPC in designating Dr. David Keith of Anchor QEA as our Project Coordinator with respect to the Site. Dr. Keith's full name, job title, address, and telephone number are as follows:

David Keith, Ph.D., R.G., C. Hg.
Partner/Senior Scientist
Anchor QEA
2113 Government Street
Building D, Suite 3
Ocean Springs, MS 39564
Telephone: (228) 818-9626 x221

Dr. Keith's and Anchor's qualifications are attached hereto as Exhibit 2.

Please do not hesitate to call if you have any questions regarding this matter.

Sincerely,

Albert R. Axe, Jr.

ARA/ltn

Enclosures

cc: Ms. Barbara Nann, US EPA Region 6 (*Via Email & Regular Mail*)
Mr. John Cermak, International Paper

EXHIBIT 1

RESPONSE OF MCGINNES INDUSTRIAL MAINTENANCE CORPORATION TO UNILATERAL ADMINISTRATIVE ORDER AND STATEMENT OF SUFFICIENT CAUSE DEFENSES

INTRODUCTION

On November 20, 2009, the United States Environmental Protection Agency ("EPA") issued a unilateral administrative order ("UAO") for performance of a remedial investigation/ feasibility study ("RI/FS") for the San Jacinto River Waste Pits Superfund Site (the "Site") and surrounding areas. Pursuant to Section XXVI of the UAO, November 20, 2009 is also the effective date of the UAO ("Effective Date"). Section X of the UAO provides that within fourteen (14) days after the Effective Date, International Paper Company ("International Paper") and McGinnis Industrial Maintenance Corporation ("MIMC" or "Respondent") (referred to collectively herein as "Respondents") are required to provide "written notice to EPA whether they will comply with the terms of this Order." Moreover, "Respondents' written notice shall describe, using facts that exist on or prior to the Effective Date of this Order, any 'sufficient cause' defenses . . . ." UAO, Paragraph 51.

As more fully set forth herein, the UAO is, among other things, contrary to law and arbitrary and capricious, deprives MIMC of its due process rights, and is not factually supportable. Without admitting any of the "Findings of Facts" and "Conclusions of Law and Determinations" contained in the UAO, and without waiving any of its defenses, **MIMC hereby notifies EPA of its intent to comply with the UAO.**

In this Response, MIMC sets forth the sufficient cause defenses its has been able to identify in the short time since it received the UAO. These sufficient cause defenses are based on facts and information currently known to MIMC.

MIMC expressly reserves the right to identify and assert additional sufficient cause defenses at any time. In light of the timing issues associated with the issuance of the UAO, as described below, MIMC has not been afforded a fair or reasonable opportunity to present sufficient cause defenses. In addition, because the UAO requires Respondents to perform an RI/FS, MIMC does not have access to information that may be developed during the RI/FS process and may serve as the basis for sufficient cause defenses. In light of the above-described circumstances, MIMC has made a good faith effort to identify and present sufficient cause defenses in this Response, but reserves its right to present additional information or arguments in support of the sufficient cause defenses set forth in this Response and to supplement this Response, based on facts and information discovered subsequent to the date of this Response.

MIMC DOES NOT ADMIT THE UNILATERAL "FINDINGS OF FACT" CONTAINED IN THE UAO, AND, IN MOST CASES, DENIES THE FINDINGS. IN FACT, AS A WHOLE, THE FINDINGS REPRESENT A VERY ONE-SIDED, SELF-SERVING VERSION OF THE SITUATION AT THE SITE PUT TOGETHER BY EPA TO SUPPORT ITS ALLEGATION THAT AN IMMINENT AND SUBSTANTIAL ENDANGERMENT EXISTS AT THE SITE

By way of examples, and without limiting Respondents' objection to the Findings, Respondent notes the following:

- Findings 12-13 (Alleged release from Site)

  - The alleged release of waste described in these "Findings of Fact" was the result of an observation by a single employee of the Harris County Health Department and was disputed by the December 30, 1965 Champion memorandum.

- Findings 17-31 (Dioxins and Furans)

  - EPA intimates that Respondents are responsible for the "high levels" of dioxin in the San Jacinto River. However, given the urban/industrial nature of this waterway, sediment and biota likely contain dioxin from many natural, societal, and industrial sources.

  - EPA's allegations regarding exceedances of an unidentified "health-based standard" in the tissue of fish and shellfish in the San Jacinto River are not scientifically supportable at this time.

  - While EPA has alleged a number of potential exposure pathways in their "Findings of Fact," there is no indication that these pathways have resulted in a significant contribution to any individual's overall exposure to dioxins and dibenzofurans given the ubiquitous nature of dioxin in the environment.

  - Not only is chloracne the most common health effect in people exposed to high levels of dioxins as alleged by EPA, it is the only definitive health effect associated with exposure. Further, chloracne has only been observed in persons that have been exposed at levels much higher than what could be occurring at the Site.

  - While several studies may "suggest" that exposure to 2, 3, 7, 8 – TCDD increases the risk of several types of cancer, EPA fails to describe the exposure scenarios analyzed in those studies and how they relate to the Site. EPA also fails to note that other studies do not support such a result.

- Finding 37 (Good Faith Offer)

  - Respondent specifically disputes EPA's assertion that the Respondents were unable to make a Good Faith Offer to EPA that could have been used as the basis to begin negotiation of an RI/FS for the Site. Respondents made such an offer on September 18, 2009. EPA never responded to Respondents' offer until it issued the UAO on November 20, 2009.

RESPONDENT DENIES THE UNILATERAL "CONCLUSIONS OF LAW AND DETERMINATIONS"

Among others, Respondent particularly denies Conclusions 45, 46 and 47 because:

- EPA has not demonstrated that releases from the Site present an imminent and substantial endangerment to the public health or welfare or the environment. In fact, a risk assessment has not been conducted for the Site.

- EPA has not demonstrated that the RI/FS required by the UAO is not inconsistent with the NCP or CERCLA. In fact, the RI/FS required by the UAO is ill-defined such that it is impossible to reach such a conclusion at this time.

- EPA has not demonstrated that the contamination at the Site constitutes "an indivisible injury." In fact, the term "Site" is ill-defined by the UAO such that it is impossible at this time to even know what the Site is. Moreover, Respondents have provided detailed information to EPA regarding the creation of a separate source of dioxin in the vicinity of the Site by dredging activity in the area. This separate source is clearly divisible from the Site.

THE UAO VIOLATES MIMC'S PROCEDURAL DUE PROCESS RIGHTS AND IMPOSES UNREASONABLE DEADLINES

The UAO contains conflicting and inconsistent deadlines that violate MIMC's procedural due process rights, are not consistent with EPA's guidance for deadlines to be set in a Section 106 unilateral order, and are not reasonable.

EPA's November 20, 2009 cover letter transmitting the UAO to Respondents ("November 20, 2009 Letter" or "Letter") states that the UAO is effective on November 20, 2009, the date the UAO was sent to the Respondents. Yet, the next heading in the November 20, 2009 Letter is "Opportunity to Confer Prior to Effective Date." The November 20, 2009 Letter goes on to state that Respondents have an opportunity to confer with EPA within seven (7) days of receipt of the UAO. Even though this section of the Letter indicates that Respondents are to be afforded an opportunity for a conference with EPA prior to the Effective Date, it was not.

EPA's action in issuing the UAO without affording Respondents an opportunity for a conference prior to the Effective Date is inconsistent with its own guidance. The Guidance on CERCLA Section 106(a) Unilateral Administrative Orders for Remedial Designs and Remedial Actions dated March 7, 1990 (OSWER Directive No. 9833.0-1a) ("Guidance Memorandum") provides that "[g]enerally, the 'effective date and computation of time' provision of a unilateral order should provide that the order is effective on a date that follows the opportunity for a conference and that all times for performance of ordered activities shall be calculated from this effective date." Guidance Memorandum at 20 (emphasis added). It also states that "[t]he conference request date should precede the effective date of the order . . .." Id. In this instance, the UAO was effective immediately upon issuance (UAO, Paragraph 103). Thus, Respondents were not afforded an opportunity for a conference prior to the Effective Date negating one of the primary purposes of the conference, i.e., to determine if settlement is a

possibility and whether a UAO is even an appropriate enforcement mechanism in this particular case. By the time the conference took place on December 3, 2009, the UAO had already been in effect for 13 days.

The Guidance Memorandum also provides that "[w]ithin five days of the conference, the Respondent may submit a written summary of any arguments it presented at the conference." Id. at 24. It further provides that this date should serve as the deadline for submission of sufficient cause defenses. *Id.* Here, Respondents will not have that five day period to make that submission. The conference took place on December 3, 2009, but Respondents are required by the terms of the UAO to notify EPA whether they intend to comply with the UAO and submit their sufficient cause defenses by December 4, 2009, the day after the conference. Respondents thus have only one day from the date of the conference to submit its sufficient cause defenses, which is being done pursuant to this document.

Moreover, by making the UAO effective on November 20, 2009, EPA has imposed unreasonable deadlines on Respondents. By way of example, Respondents are required to notify EPA of the identify of the persons who will act as their Project Coordinator within 14 days of the Effective Date. UAO, Paragraph 75. This date falls on the same date on which Respondents are required to notify EPA whether they intend to comply. A further example is that the "scoping phase" meeting, which is required by the UAO to take place within 15 days after the Effective Date (by Saturday, December 5, 2009). This date is two days after the conference and one day after the deadline by which Respondents must notify EPA whether they will comply.

Other examples of arbitrary and capricious deadlines contained in the UAO (all of which run from the Effective Date of November 20, 2009) include the following:

Health and Safety Plan – due within 20 days
Quality Management Plan – due within 30 days
Screening level risk assessment – due within 30 days
RI Work Plan – due within 60 days
RI/FS Sampling and Analysis Plan – due within 60 days

As a result of the conference held with EPA on December 3, 2009, an agreement has been reached between the parties that corrects some of these more onerous deadlines. MIMC reserves the right to assert the unreasonableness of these and other deadlines, however, as work proceeds under the UAO.

EPA LACKS THE AUTHORITY TO COMPEL RESPONDENTS TO "UNEQUIVOCALLY COMMIT" TO PERFORM THE UAO

The UAO purports to obligate Respondents to "unequivocally commit" to perform the UAO. UAO, Paragraph 51. It further provides that in the absence of an unequivocal commitment, Respondents shall be deemed to have "violated and to have failed and refused to comply with the UAO." *Id.*

Section 106 of CERCLA does not contain any such requirement, and EPA has no legal authority to impose such a requirement on Respondents. It is also unfair and unreasonable and deprives Respondents of their due process rights to require that they "unequivocally commit" to perform the UAO, when the scope of those obligations are not defined (in that the Statement of Work ("SOW") is in a draft and not final form and is so broadly worded and so contingent on EPA's unilateral approval authority that the scope of the work is impossible to determine) and EPA has purported to reserve the right to expand or modify requirements applicable under the UAO, as is described elsewhere in this Response.

THE UAO WAS IMPROPERLY ISSUED BECAUSE IT FAILS TO CLEARLY IDENTIFY WHAT IT REQUIRES

The UAO was improperly issued because it fails to clearly identify the work that it requires Respondents to perform. As acknowledged in the draft SOW, the purpose of the RI/FS required by the UAO is to determine the nature and extent of the contamination. However, neither the UAO nor the attached draft SOW clearly defines an end point to this work. Rather, the work must proceed until EPA says to stop in its sole discretion.

According to the Guidance Memorandum, unilateral administrative orders under Section 106 of CERCLA ("Section 106 Orders") "are generally not recommended for ordering conduct of an RI/FS" and "[a]gency policy favors use of consent orders for RI/FSs." (*Id.* at A-1,n.61 and 6, n. 11). This is understandable given the lack of specificity contained in the UAO for an RI/FS and the absence of data and studies sufficient at this stage to serve as the basis for EPA's determination of an imminent and substantial endangerment to human health and the environment.

ISSUANCE OF THE UAO WAS ARBITRARY, CAPRICIOUS AND NOT IN ACCORDANCE WITH LAW, BECAUSE, CONTRARY TO ITS OWN GUIDANCE, THE REGION DID NOT "REVIEW THE PRP SEARCH TO ENSURE IT IS COMPLETE" BEFORE ISSUING THE UAO

EPA's Guidance Memorandum contemplates that consideration will be given to the status of the PRP search before a Section 106 order is issued. Guidance Memorandum at 15. In this instance, Respondents have previously asked that EPA to investigate the activities of companies involved in dredging activities in and around the "Tract" as defined in the UAO ("Dredging Parties"). These activities appear to have caused or contributed to releases in the vicinity of the Site. Moreover, the Guidance Memorandum specifically states that present owners of the Site should be named as Respondents. Naming the present owners is vital since they must provide access. Issuance of the UAO before the responsibility of the Dredging Parties and other PRPs has been assessed and the owners have been identified is not only contrary to EPA's own guidance, but is arbitrary and capricious.

THE UAO IS NOT LEGALLY ENFORCEABLE AND IS ARBITRARY, CAPRICIOUS AND NOT IN ACCORDANCE WITH LAW, BECAUSE THE ACTIONS IT REQUIRES RESPONDENTS TO PERFORM ARE ILL-DEFINED AND UNCERTAIN AND ARE ALSO SUBJECT TO MODIFICATION BY EPA

The scope of obligations imposed on Respondents under the UAO are ill-defined. They are also subject to modification by EPA. The UAO therefore fails to afford Respondents with notice as to the scope of their obligations under the UAO, thus rendering the UAO legally unenforceable.

EPA seeks to compel Respondents to commit to perform the UAO, notwithstanding that the SOW is marked as a draft and thus is arguably subject to modification by EPA. The SOW is integral to the scope of Respondents' obligations under the UAO. Because it is a draft form, Respondents have no reasonable means – as of the date on which it must agree to comply with the UAO – of determining the precise scope of the work that EPA intends to require under the terms of the UAO. Moreover, even if the SOW were not marked "Draft," its scope is still so ill-defined as to be impossible to comply with it. Thus, issuance of the UAO based on a draft, ill-defined SOW was improper and in violation of Respondents' due process rights. It is also contrary to the Guidance Memorandum, which contemplates specificity in unilateral orders. For example, the Guidance Memorandum provides that "[u]nilateral orders should specifically define the response action required, to the maximum extent possible. A specifically identified response action is required for implementation by the PRPs, for the Agency to determine compliance, and for the order to be legally enforceable." Guidance Memorandum at 13.

The UAO contains provisions that purport to grant to EPA the ability to impose additional requirements beyond and in addition to those currently only vaguely identified in the UAO. These include, without limitation, the following provisions of the UAO: (1) Paragraph 54 (reservation by EPA of the right to direct changes to deliverables); (2) Paragraph 67 (stating that EPA may require Respondents under the UAO to take "all appropriate action" to address any imminent or substantial endangerment identified during period UAO is in effect); and (3) Paragraph 71 (EPA may require Respondents to perform additional response actions if necessary for a complete RI/FS).

MIMC IS REQUIRED TO MAKE A DECISION WHETHER TO COMPLY WITH THE UAO, EVEN THOUGH IT HAS NO REASONABLE MEANS OF DETERMINING THE NATURE, SCOPE AND COST OF THE WORK THAT IS REQUIRED

The requirement that Respondent "unequivocally commit" to perform the UAO, without being in a position to reasonably determine what the scope of its obligations will be under the UAO or the costs require to comply, is a denial of due process and contrary to the National Contingency Plan. MIMC has no reasonable means of determining the nature, scope and cost of the work that is required by the UAO, and it therefore would be a violation of due process for Respondent to be liable for civil penalties for failing to comply with the UAO or otherwise be subject to enforcement action. The uncertainty as to the nature, scope and cost of the work required by the UAO relates, among other things, to the fact that the SOW attached to the UAO is a "draft" and not a final document, and the UAO contains provisions that give EPA the ability to impose additional requirements beyond those currently identified in the UAO. Respondent has no reasonable means of assessing the scope and cost of the work required by the UAO, in contrast to the situation when a Section 106 order is issued after the RI/FS process has been completed. In that situation, a remedy has been selected and the cost of that remedy will have been identified as part of the RI/FS process.

EPA ACTED UNREASONABLY IN ORDERING RESPONDENTS TO PERFORM WORK THAT WILL REQUIRE ACCESS TO THE SITE, GIVEN THAT EPA IS AWARE THAT THEY LIKELY CANNOT GAIN SUCH ACCESS

Many aspects of the RI/FS process will require access to the "Tract" portion of the Site for purposes of assessing conditions. EPA is aware of uncertainty regarding legal ownership of and access to that portion of the Site. While ordering Respondents to conduct investigative activities in that area, EPA has not made reasonable provisions (including using its own

authority to gain access) to ensure that Respondents will have access necessary for that purpose. EPA's failure to provide the necessary access or to identify and name the owners of the Tract as additional respondents, places Respondents in a position in which they may not be able, due to lack of access, to meet specific obligations imposed by the UAO.

THE UAO IS CONTRARY TO LAW AND VIOLATES RESPONDENTS' DUE PROCESS RIGHTS IN THAT IT SEEKS TO IMPOSE JOINT AND SEVERAL LIABILITY AND FAILS TO ALLOCATE LIABILITY AMONG THE RESPONDENTS

The UAO improperly purports to impose joint and several liability on Respondents. Applicable law, however, establishes that joint and several obligations cannot be imposed on parties under a unilateral order issued pursuant to Section 106 of CERCLA. *United States v. Stringfellow,* No. CV-83-2501-MML, 1984 WL 3206 (C.D. Cal. 1984). The UAO is not proper or legally enforceable because it fails to specifically state the steps that Respondents are required to take.

THERE IS NO LEGAL BASIS FOR EPA TO ORDER RESPONDENTS TO DEMONSTRATE FINANCIAL ASSURANCE

Paragraph 93 of the UAO purports to require Respondents to demonstrate financial assurance in an amount no less than the estimate of cost for the RI/FS for the Site. EPA is not authorized by Section 106 of CERCLA or other law to require Respondents to make this demonstration. Moreover, this requirement violates Respondents' due process rights since it is absolutely impossible to prepare a cost estimate for the RI/FS given the vague and ill-defined nature of the UAO and attached draft SOW.

THERE IS NO LEGAL BASIS FOR ANY DISCLAIMER OF LIABILITY ON THE PART OF THE UNITED STATES

Paragraph 95 of the UAO contains a disclaimer on the part of the United States regarding its liability with respect to activities at the Site. EPA has no legal authority or standing to make such a declaration in a UAO. In agreeing to perform activities required by the UAO, Respondents cannot be forced to acknowledge the validity of EPA's purported disclaimer of liability.

THE UAO WAS NOT ISSUED BY AN OFFICIAL AUTHORIZED BY LAW TO ISSUE SECTION 106 ORDERS

The UAO was issued by Samuel Coleman, as Director of the Superfund Division, Region 6. Mr. Coleman is not an official who is authorized by law to issue such an order and the UAO therefore is legally invalid.

Section 106(a) of CERCLA vests the President of the United States with the authority to issue administrative orders under that section. Pursuant to Executive Order 12580, former President Reagan delegated his authority to the EPA Administrator. Executive Order No. 12580, A4(d)(1), 52 Fed. Reg., 2923 (January 23, 1987). The EPA Administrator then purportedly redelegated this authority to the Regional Administrators. EPA Delegation Order No. 14-14-B (September 13, 1987). Executive Order 12580, however, limits the redelegation authority of the EPA Administrator, by providing that such functions vested in the President by

the Act which have been delegated or assigned by this Order may be redelegated to the head of any Executive department agency with his consent. Executive Order No. 12580, A11(g), 52 Fed. Reg. 2923 (January 23, 11987) (emphasis added).

EPA's Regions are clearly neither Executive departments nor Executive agencies. Thus, the purported redelegation from the EPA Administrator to the Regional Administrators was not authorized by Executive Order 12580.

The lack of authority of the Regional Administrators to issue Section 106 orders was recognized in Industrial Park Devel. Co. v. EPA, 604 F.Supp. 1136 (E.D. Pa. 1985). In Industrial Park, the plaintiff Industrial Park Development Company ("IPDC") sought a preliminary injunction to block EPA access to IPDC's property. EPA had previously issued a unilateral Section 106 order to IPDC and alleged that pursuant to that order it had, inter alia, the right to access the property. (*Id.* at 1142.)

IPDC contested the validity of the Section 106 order, arguing that the Regional Administrator lacked the legal authority to issue such an order. The court noted that "[a]ccording to the December 12, 1984 Section 106 Order, authority under CERCLA was redelegated to the Regional Administrator, but this court has reservations about the legitimacy of this further delegation." (*Id.*, emphasis added).

Although the court ultimately denied injunctive relief because IPDC failed to establish an irreparable harm required for injunctive relief, the court held that based on the IPDC's legal authority argument, IPDC had made a "strong demonstration of its success on the merits." (*Id.* at 1144.)

The UAO was not issued by the Regional Administrator, but by the Director of the Superfund Division in Region 6, to whom EPA asserts that the Regional Administrator's authority was further delegated. UAO at Paragraph 2. The Regional Administrator lacked the authority to make this redelegation, and the UAO therefore is void *ab initio*.

THE UAO IMPROPERLY SEEKS TO IMPOSE LIABILITY ON RESPONDENTS FOR CONDITIONS WHICH ARE THE RESULT OF THE ACTS OR OMISSIONS OF PARTIES OTHER THAN RESPONDENTS AND IN CIRCUMSTANCES CONTRARY TO THE SUPREME COURT'S DECISION IN *BURLINGTON NORTHERN*

The conditions addressed by the UAO include conditions that are the result of acts or omissions of other parties, including the Dredging Parties. The UAO seeks to impose liability on Respondents for investigating conditions that are the result of acts and omissions of other parties, and to that extent is without any adequate legal basis and is improper and contrary to the decision in *Burlington Northern v. Shell Oil*, 129 S.Ct. 1870 (2009). Moreover, this imposition of liability is contrary to §107(b)(3) of CERCLA.

EXHIBIT 2

DAVID KEITH, Ph.D., R.G., C.H.G.

Partner, Project Manager/Sediment Scientist

PROFESSIONAL HISTORY

Anchor QEA, Partner, 2009
Anchor Environmental, Partner, 2006 to 2009
Anchor Environmental, Associate, 2002-2006
19 Years Total Environmental Consulting Experience

EDUCATION

Colorado School of Mines, Golden, Colorado, Ph.D., Geochemistry, 1994
University of Southern Mississippi, Hattiesburg, Mississippi, M.S., Geology, 1991
North Carolina State University, Raleigh, North Carolina, B.S., Geology, 1983

EXPERIENCE SUMMARY

Dr. Keith has directed and participated in numerous projects involved in remediating sites environmentally impacted by contaminated surface water, groundwater, soils, sediments, and other geologic materials, and in addressing problems associated with nonpoint source pollution in stormwater runoff. He has conducted hydrogeologic investigations at local and regional scales, geochemical evaluations of contaminated sediments, soils, industrial wastes, and mining wastes, and developed data analysis tools using geographic information system technology. Dr. Keith has led remedial investigations and feasibility studies at RCRA/CERCLA sites, preparation of Environmental Impact Statements/Environmental Assessments as required by NEPA, and in the design of reclamation and closure plans for mine and other industrial sites.

Dr. Keith has worked on several projects involved in evaluating the distribution and the potential ecological impacts of contaminated sediments in lakes, streams, and estuaries throughout the United States. He has exceptional expertise in the use of numerical geochemical models for determining the fate and transport of contaminants in aquatic environments, and in source identification. He has performed water quality evaluations in regards to dredging, capping, natural recovery, and disposal options for a variety of contaminants. Contaminants of concern have included metals and a variety of organic chemicals (polychlorinated biphenyls, polyaromatic hydrocarbons, dioxins and furans, and pesticides). He has provided litigation support and expert witness services on several projects.

REPRESENTATIVE PROJECT EXPERIENCE

Patrick Bayou Remedial Investigation/Feasibility Study, Patrick Bayou Joint Defense Group

Dr. Keith is the technical lead/project manager for superfund site investigations of tributary to the Houston Ship Channel that is surrounded by three major industrial manufacturing facilities. The project involves multiple potential contaminant phases and sources, and significant hydrodynamic concerns. Specific tasks involve development of site conceptual model, and development and implementation of remedial investigation and feasibility study workplans, including ecological and human health risk assessment.

Bayou d'Inde Site, Calcasieu River and Estuary in Lake Charles, Louisiana, Bayou d'Inde PRP Group

Dr. Keith is the technical reviewer/advisor on the project team providing FS, remedial design, and integrated natural resource damage (NRD) services to group of PRPs on Bayou d'Inde of the Calcasieu River/Estuary located in Lake Charles, Louisiana. EPA previously performed a RI and risk assessment of the larger river/estuary area, and identified Bayou d'Inde as a primary area of concern. A group of PRPs with facilities on Bayou d'Inde entered into an agreement with the State of Louisiana to conduct follow-on FS and remedial design activities at the Site. Anchor is providing a wide range of project management and technical services for the project, including further development of the site conceptual model, delineation of areas of interest, development of remediation goals and objectives, detailed risk assessment and NRD assistance.

San Jacinto Waste Pits, Houston, Texas

Dr. Keith is providing expert technical consulting services for two potentially responsible parties to identify sources of dioxins in the San Jacinto River and Houston Ship Channel following receipt of special notice letters from USEPA Region 6. To date, services have involved interpretation of site sediment chemistry data and hydrodynamic information, evaluation of aerial photographs, determination of dredging impacts from sand mining operations in the area, and development of potential source control remedies and cost estimates for the waste pits and surrounding area.

Bayou Texar, Pensacola, Florida

Dr. Keith is conducting expert fate and transport evaluations to identify attenuation mechanisms for fluoride-bearing groundwater as it enters sediments in Bayou Texar for industrial clients. The evaluation has involved developing work plans to understand the distribution of fluoride in surface water, pore water, and sediments and applying geochemical modeling techniques to interpret those data. The results showed that fluoride precipitates as an inert mineral as groundwater interacts with the surface water in Bayou Texar in transitional sediments and the ultimate ecological impact of the groundwater discharge is minimal.

Campbell Shipyard Remedial Design, Port of San Diego, California

Dr. Keith was the project manager for Site remedial alternatives analyses, technical analyses for the site Environmental Impact Report, and for preparing engineering design documents for the San Diego Unified Port District remediation project at the former Campbell Shipyard. The design involves placing a clean habitat cap over contaminated sediments that contain constituents of concern (COCs) at concentrations greater than cleanup levels. The habitat cap will isolate contaminated sediments from the marine environment, and provide clean habitat for flora and fauna. Specific team tasks included providing design specifications for construction of the habitat cap, upgrading the shoreline (bulkhead) structures, re-locating a storm drain that currently discharges to the site, designing the dredge and fill portions of the project, providing support in obtaining all necessary State and Federal permits, designing and documenting habitat

enhancement opportunities, and providing construction oversight. There is a large component of agency and public outreach associated with the project.

NAPL Water Quality Evaluation, Vancouver Shipyard, British Columbia

Dr. Keith was the principal environmental scientist for the evaluation of water quality impacts associated with dredging sediments contaminated with non-aqueous phase liquids (NAPL) in an active shipyard. The project involved characterization of sediments containing up to 1.3% polycyclic aromatic hydrocarbons, developing dredge management units and developing dredge elutriate test procedures to account for NAPL behavior. Modified U.S. Army Corps of Engineer DREDGE modeling procedures were also developed to predict water quality at the point of dredging, and for areas downstream. Best management practices for dredging were developed and analyzed in the DREDGE model. These data were used to evaluate potential ecological responses that could result from NAPL release under different scenarios.

Stege Marsh Toxic Hot Spot Evaluation in Richmond, California, Stauffer Management Company

Dr. Keith was the project manager/principal environmental scientist for assessment of site impacted by weathering by-products of pyrite cinder landfill, fuels, proprietary pesticides, solvents, and alum generated at a former chemical processing facility undergoing site closure and redevelopment on San Francisco Bay. This work was done for a large industrial client under the direction of *de maximis* serving as a project coordinator. Dr. Keith led the development and implementation of field investigations of soils, sediments, and waters in upland chemical plant property and areas within Stege Marsh, recreated a site history spanning a period of 85 years using aerial photographs and company documents, and performed detailed geochemical and hydrogeologic analysis to develop a site conceptual model. The model explained the generation and migration of sulfuric acid, metals and other contaminants into Stege Marsh. The conceptual model was utilized to develop performance specifications for a passive bio-reactor treatment system for groundwater. A comprehensive remedial system design, including excavation and neutralization of reactive cinder landfills materials, was developed and successfully presented to the governing Regional Water Quality Control Board.

Halby/Potts Site Investigation in Wilmington, Delaware, U.S. Borax

Dr. Keith was the project manager/principal environmental scientist for evaluation of contaminant sources and migration pathways in adjacent State Superfund/chemical processing facilities undergoing site closure and redevelopment near the Port of Wilmington, Delaware. The investigation consisted of developing and implementing a comprehensive site investigation to evaluate sediments and groundwater in an estuarine marsh system. The primary purpose of the investigation was to evaluate contaminant distribution and develop a contaminant source allocation for the responsible parties. Primary contaminants of concern included arsenic, lead, carbon disulfide, petroleum coke, and other petroleum product derivatives. He utilized detailed sediment sampling techniques and advanced geochemical analysis of materials including x-ray

diffraction, scanning electron microscopy, and stable isotope analyses, along with bulk geochemical analyses to identify specific phases associated with waste from each of the former chemical processing facilities. Contaminant allocation negotiations and subsequent remedial actions were successfully completed.

San Diego River and Santa Margarita River Watershed Management Plans, County of San Diego, California

Project Manager and technical lead for assessing water quality issues associated with the San Diego River and Santa Margarita Watershed Management Plan projects for the County of San Diego. The projects involve determining and describing existing conditions in the watershed in regards to land use, water quality, habitat quality, hydrology, and developing a priotized strategy for the future management and improvement of the watershed resources through stakeholder involvement.

San Diego County Stormwater Monitoring Program, San Diego County Co-permittees

Project Manager for design and implementation of 5-year stormwater monitoring plan for the City and County of San Diego and 19 Co-permittees based on requirements of California Regional Water Quality Control Board San Diego Region Order 2001-01. Program elements include design and installation of mass loading stations for chemical and toxicological testing, urban stream bioassessments, coastal outfall monitoring, dry weather-illicit connection/discharge investigations, and ambient bay, lagoon, and coastal receiving water monitoring. Recommended program design involves a phased and adaptive approach that moves towards watershed-based monitoring and reporting programs that allow determination of annual and long-term trends of ecological health in receiving waters of the county based on chemical, physical, and biological evidence.

303(d) Impaired Water Body Listings Support, Port of San Diego, the City of Coronado, City of Oceanside, California

Project Manager for analysis of 303(d) listings for bacteria, TDS and chloride. Analyses focused on defining temporal and spatial impacts and identification of sources of the listed constituents. Also Project Manager and lead technical representative for San Diego County Copermittee 303(d) group for TDS, chloride, and sulfate in 11 water bodies throughout the County. Evaluated and reported on the sources of TDS included natural loading, loading from imported water and agricultural practices, and loading from urban runoff. Dr. Keith outlined issues involving Regional Water Quality Control Board Basin plan objectives and is involved in a focused scientific and political effort to amend water quality objectives for TDS to more appropriate levels. Reports were and are being submitted to the State and Regional Water Quality Control Boards as part of formal comment period. Analyses were well-accepted by the Regional Water Quality Control Board, with one water body recommended for de-listing to date.

America's Cup Harbor Dredging Monitoring and Reporting in San Diego, California, Port of San Diego

The San Diego Regional Water Quality Control Board (RWQCB) issued Cleanup and Abatement Orders directing the cleanup of America's Cup Harbor sediments in the vicinity of leasehold operations of Kettenburg Marine Corporation, Bay City Marine, Inc., Koehler Craft Company, Mauricio & Son, Inc. (currently operated as Nielsen Beaumont Marine, Inc.), and Driscoll Custom Boats, Inc. Each remediation plan was to comply with water quality objectives (WQO) adopted by the Board as described in the California Ocean Plan, Water Quality Control Plan, Ocean Waters of California (Ocean Plan).

Dr. Keith provided project management of water and sediment quality issues related to Cleanup and Abatement Orders at the Kettenburg, Driscoll, and Nielsen Beaumont boatyards during dredging operations. The program consisted of receiving water monitoring of ambient bay waters where dredging operations were in effect, and confirmation testing of sediments to insure cleanup was effective. Based on the receiving water monitoring and confirmation testing performed at the Kettenburg Marine Corporation, Driscoll Custom Boats, and Nielsen Beaumont Sites, dredging operations remained in compliance with the requirements of Order No. 94-102. The San Diego Unified Port District and the boatyards were released of their Cleanup and Abatement Orders as a result of the analysis and reporting directed by Dr. Keith.

Switzer Creek PCB/PNA Sampling and Analysis in San Diego, California, Port of San Diego

Dr. Keith served as the lead scientist for the collection of stream and bank sediment sampling in Switzer Creek Channel above outfall at Campbell Shipyard. The primary purpose of the sampling was to provide stream sediment and soil samples for screening source identification analysis of polychlorinated biphenyls and polynuclear aromatic hydrocarbons. Testing also included metals, and chlorinated and phosphoric pesticides for future Toxic Hot Spot evaluations. The data analysis will include evaluating potential future impacts to San Diego Bay sediments as a result of ongoing discharge and re-suspension of any potentially contaminated sediments.

Rose Creek Trestle Fire Sampling and Remediation, Confidential railroad client

Project manager and lead scientist for determining the extent of polynuclear aromatic hydrocarbon, phenol, and metal contamination potentially associated with a burned railroad trestle treated with creosote. This investigation involved determining the ambient concentrations of contaminants in stream bed compared to concentrations following the fire over a 1.1 mile linear area, mapping areas where fire byproducts had accumulated, and supervising the eventual cleanup of the stream bed.

Environmental Impact Statement Analysis of Proposed Tailings Impoundment Expansion in North Central Idaho, U.S. Forest Service

Dr. Keith was the principal environmental scientist for U.S. Forest Service in analyzing long-term downstream effects of tailings seepage from molybdenum mine on downstream waters containing

endangered species. Environmental impacts of proposed tailings impoundment expansion project action alternatives were evaluated for low-flow and high-flow stream conditions. Involved estimating the long-term evolution of tailings impoundment pore water chemistry in unsaturated and saturated materials by utilizing groundwater and surface water flow modeling, mixing calculations, geochemical equilibrium calculations, and chemical adsorption/desorption modeling. He worked closely with representatives from the mine, Forest Service, U.S. Fish and Wildlife, and public groups to develop recommendations within the final Environmental Impact Statement. Final recommendations were approved and implemented.

Geochemical Evaluation of Proposed Solution Mining Project - White Pine Mine, Michigan

Principal geochemist in the evaluation of the long-term effects of fluid/rock interaction for a proposed solution mining project in support of the Environmental Impact Statement required as required by NEPA. This involved analysis of groundwater and mining fluid flow and mixing in a large underground mine, prediction of equilibrium chemistry based on theoretical geochemical reaction-path modeling, laboratory bench-scale testing, and pilot testing. Long-term predictions were developed for local and regional groundwater flow/chemistry, potential environmental impacts were identified, and appropriate alternatives were developed to minimize the impact of the proposed project. An Environmental Impact Statement was successfully submitted and approved by appropriate agencies.

Boulder Creek Background Metals Evaluation in Iron Mountain, California, Stauffer Management Company

Project manager/principal environmental scientist for estimation of natural background metals concentrations in soils, sediments, groundwater, and surface water in the Boulder Creek Watershed, Iron Mountain Superfund Site, California. The project involved development of extensive field programs including stream sediment sampling, monitoring well/piezometer network design and installation, mine waste sampling, stream flow measurement station design and installation, automated stream water quality monitoring network design and installation. Background metals concentration ranges were established based on geochemical evaluations, literature review, and statistical analyses to focus remedial investigation and feasibility study investigations.

PUBLICATIONS

Peer-Reviewed Publications

1996 "Geochemical Responses of Mixed-Siliciclastic Carbonate Reservoirs to Steamflood Enhanced Oil Recovery." *Applied Geochemistry,* vol. 13, no. 4, pp. 491-507 (with W.J. Harrison, R.F. Wendlandt, A.B. Carpenter, and E.J. Daniels).

1997 Geochemistry of Abandoned Fluids Associated with the Proposed Underground Solution-Mining Project at the White Pine Mine. *Mining Engineering*, April, pp. 62-67 (with G.A. Doyle, D.D. Runnells, and J. Tilk).

2001 Geochemical Models of the Impact of Acidic Groundwater and Evaporative Sulfate Salts on Boulder Creek at Iron Mountain, California," *Applied Geochemistry*, vol. 16, p. 947-961 (with D.D. Runnells, K.J. Esposito, J.A. Chermak, D.B. Levy, S.R. Hannula, Malcolm Watts, and Larry Hall).

2003 "Estimating Ground Water Discharge by Hydrograph Separation" *Groundwater* v. 41 no. 3 pp. 289-400 (with S.R. Hannula, K.J. Esposito, J.A. Chermak and D.D. Runnells).

Proceedings Papers and Abstracts

1993 "Laboratory and Numerical Simulation of Fluid-Rock Interactions During Steamflood EOR of a Volcaniclastic Reservoir," *Preprints Symposia, Division of Petroleum Chemistry, Inc, American Chemical Society*, vol. 38, no. 1, pp. 176-180 (with H. Semimbar, R.F. Wendlandt, W.J. Harrison, and D. Beaty).

1994 "Steam-Induced Alteration of Mineralogy and Permeability in Kaolinitic Siderite-Bearing Sandstones," Poster and abstract, American Association of Petroleum Geologist Annual Convention, June, 1994 (with W.J. Harrison, R.F. Wendlandt, A.B. Carpenter, E.J. Daniels, and G.S. Orton).

1996 "Experimental Simulation of Waste Rock Weathering Under Unsaturated and Saturated Conditions at Iron Mountain, California," *Proceedings of the Third International Conference on Tailings and Mine Waste, '96,* January 16–19, Fort Collins, Colorado, Balkema Publishing Co., Rotterdam, p. 351–360 (with D.D. Runnells).

1996 "Geochemical Investigations of the Fate of Abandoned Raffinate in a Proposed In-Stope Solution Mining Project, with Applications to Predictions of Ground Water Quality," Proceedings of the Society of Mining Engineers Annual Meeting, Phoenix, Arizona, March 11-14. (with G.D. Doyle, D.D. Runnells, and J Tilk).

1998 "Geochemical and Geotechnical Evaluation of the Bulldog Mine Tailings Impoundment," *Tailings and Mine Waste '98*, A.A. Balkema, Fort Collins, Colorado, January 26—28, pp. 539—548 (with C. Strachan, T. Kelley, and A. Cox).

1998 "Chemistry, Mineralogy, and Effects of Efflorescent Sulfate Salts Acid Mine Drainange Areas," Abstracts of the Geological Society of America 1998 Annual Meeting, October 26-29, Toronto, Canada (with D.D. Runnells).

1998 "Methodology for Determining Natural Background Chemistry at a Former Mining Site, Iron Mountain, California," Abstracts of the Geological Society of America 1998 Annual Meeting, October 26-29, Toronto, Canada (with J.A. Chermak, D.D. Runnells, K.J. Esposito, and S.R. Hannula).

1999 "Estimating Groundwater Discharge by Hydrograph Separation, Iron Mountain, California," *Proceedings of the Sixth International Conference on Tailings and Mine*

Waste '99, January 24-27, Fort Collins, Colorado, AA. Balkema/Rotterdam/Brookfield, p. 581-589 (with S. R. Hannula, D.D. Runnells, K. J. Esposito, and J. A. Chermak).

1999 Methodology for Determining Natural Background Chemistry at a Former Mining Site, Iron Mountain, California. Preprints of the SME 1999 Annual Meeting, March 1-3 (with D.D. Runnells, J.A. Chermak, and K.J. Esposito).

1999 "Geochemical Modeling of the Impact of Evaporative Sulfate Salts on Boulder Creek at Iron Mountain, California." Tailings and Mine Waste '99, A.A. Balkema, Fort Collins, Colorado, January 24-27 (with D.D. Runnells, and M.L. Watts).

2003 "Total Dissolved Solids in San Diego County," H2O Headwaters to the Ocean Conference, Long Beach California, October 23, 2003.

2006 Geochemical Analysis of Fluoride Solubility in a Fresh Water/Saltwater Mixing Zone, Intalco Aluminum Corporation, Ferndale, Washington, Fourth International Conference on Remediation of Contaminated Sediments, Savannah, Georgia (with R. Desrosier and M. Stiffler) January, 2006.

2007 Effects of Hurricane Rita in Bayou d'Inde, Lake Charles, Louisiana, Optimizing Decision-Making and Remediation at Complex Sediment Sites (with D. Haury) January 8-10, 2008—New Orleans, LA.

2009 Evaluation of Sediment Stability and Natural Attenuation in Patrick Bayou, Texas, Fifth International Conference on Remediation of Contaminated Sediments, Jacksonville, Jacksonville, Florida (with K. Zeigler and D. Nagju), January, 2009.

Other Publications

1991 "Ground Water Models, Depositional Environments, and Facies Relationships of the Neogene Aquifer System in Marion County, Mississippi." Master's thesis, University of Southern Mississippi, Hattiesburg, Mississippi.

1994 "Geochemical Response of Kaolinitic, Carbonate-Bearing Siliciclastic Reservoirs to Enhanced Oil Recovery" *Ph.D. dissertation*, Colorado School of Mines, Golden, Colorado.

1997 Short Course Notes: "Geochemistry at Mining and Milling Sites Workshop." International Tailings and Mine Waste Conference, January, 1997, Fort Collins, CO (with D.D. Runnells, G. Doyle, M. Shields, K.J. Esposito, and J Chermak).

2008 Short Course Notes: Best Practice Group Annual Meeting. *Conceptual Site Models for Sediment Sites*, August 2008, Houston, Texas.

2009 Short Course Notes: Best Practices Group Annual Meeting. *Innovative Remedial Investigation and Feasibility Study Approaches at Sediment Sites*, August 2009. Houston, Texas.